

Client

Legend

Notes

Revision By Appd. YY.MM.DD

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Permit-Seal



Client/Project
 WINNIPEG TRANSIT DIRECT CURRENT FAST
 CHARGING BUS STATIONS BRANDON GARAGE

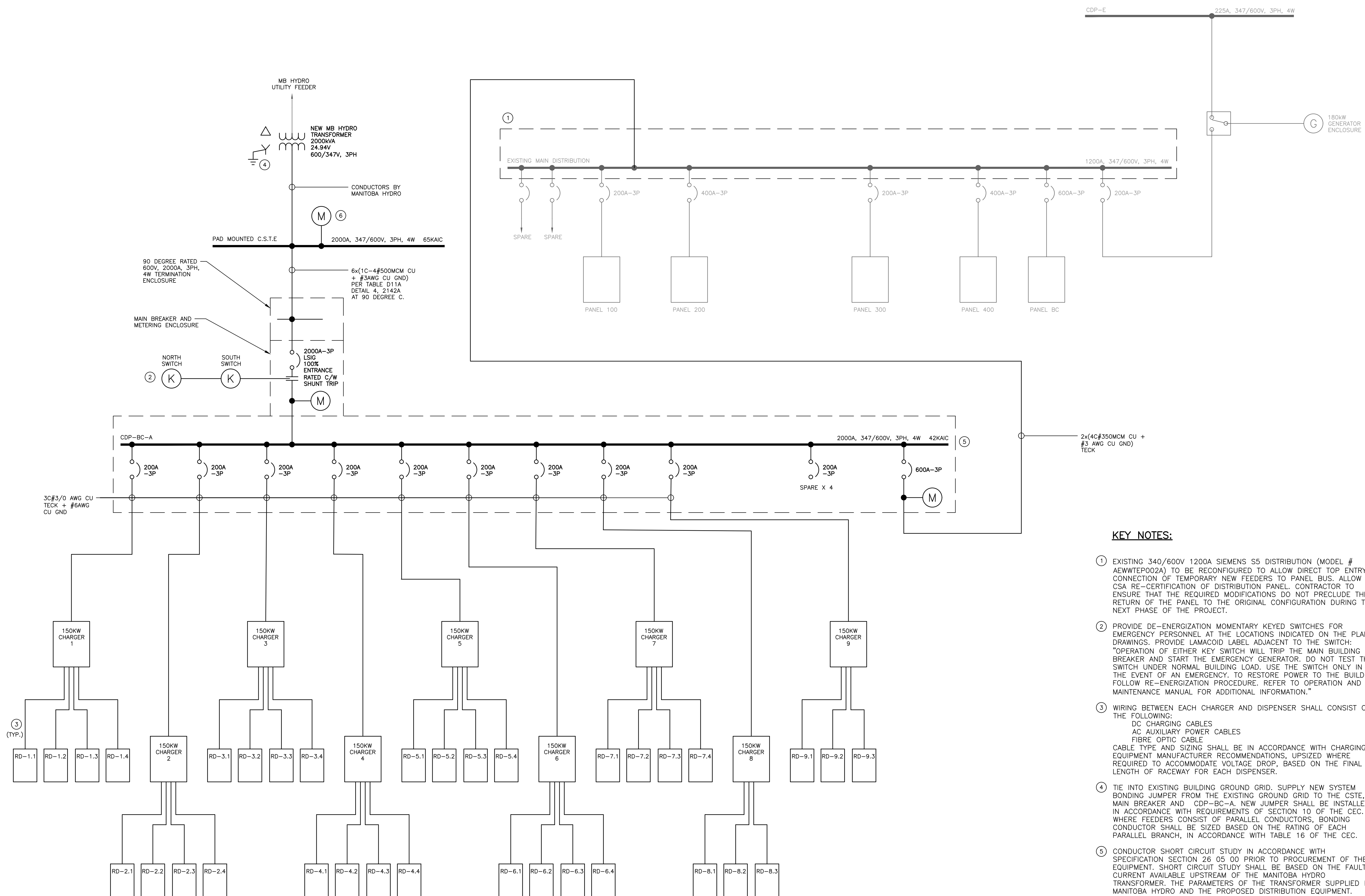
600 Brandon Ave. Winnipeg, Manitoba

Title
 SINGLE LINE DIAGRAM -
 NEW CONSTRUCTION

Project No. 144523001 Scale As Indicated

Drawing No. Sheet Revision

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KEY NOTES:

- EXISTING 340/600V 1200A SIEMENS S5 DISTRIBUTION (MODEL # AEWTEP002A) TO BE RECONFIGURED TO ALLOW DIRECT TOP ENTRY CONNECTION OF TEMPORARY NEW FEEDERS TO PANEL BUS. ALLOW FOR CSA RE-CERTIFICATION OF DISTRIBUTION PANEL. CONTRACTOR TO ENSURE THAT THE REQUIRED MODIFICATIONS DO NOT PRECLUDE THE RETURN OF THE PANEL TO THE ORIGINAL CONFIGURATION DURING THE NEXT PHASE OF THE PROJECT.
- PROVIDE DE-ENERGIZATION MOMENTARY KEYED SWITCHES FOR EMERGENCY PERSONNEL AT THE LOCATIONS INDICATED ON THE PLAN DRAWINGS. PROVIDE LAMACOID LABEL ADJACENT TO THE SWITCH: "OPERATION OF EITHER KEY SWITCH WILL TRIP THE MAIN BUILDING BREAKER AND START THE EMERGENCY GENERATOR. DO NOT TEST THE SWITCH UNDER NORMAL BUILDING LOAD. USE THE SWITCH ONLY IN THE EVENT OF AN EMERGENCY, TO RESTORE POWER TO THE BUILDING. FOLLOW RE-ENERGIZATION PROCEDURE. REFER TO OPERATION AND MAINTENANCE MANUAL FOR ADDITIONAL INFORMATION."
- WIRING BETWEEN EACH CHARGER AND DISPENSER SHALL CONSIST OF THE FOLLOWING:
 DC CHARGING CABLES
 AC AUXILIARY POWER CABLES
 FIBRE OPTIC CABLE
 CABLE TYPE AND SIZING SHALL BE IN ACCORDANCE WITH CHARGING EQUIPMENT MANUFACTURER RECOMMENDATIONS, UPSIZED WHERE REQUIRED TO ACCOMMODATE VOLTAGE DROP, BASED ON THE FINAL LENGTH OF RACEWAY FOR EACH DISPENSER.
- TIE INTO EXISTING BUILDING GROUND GRID. SUPPLY NEW SYSTEM BONDING JUMPER FROM THE EXISTING GROUND GRID TO THE CSTE, MAIN BREAKER AND CDP-BC-A. NEW JUMPER SHALL BE INSTALLED IN ACCORDANCE WITH REQUIREMENTS OF SECTION 10 OF THE CEC. WHERE FEEDERS CONSIST OF PARALLEL CONDUCTORS, BONDING CONDUCTOR SHALL BE SIZED BASED ON THE RATING OF EACH PARALLEL BRANCH, IN ACCORDANCE WITH TABLE 16 OF THE CEC.
- CONDUCTOR SHORT CIRCUIT STUDY IN ACCORDANCE WITH SPECIFICATION SECTION 26 05 00 PRIOR TO PROCUREMENT OF THE EQUIPMENT. SHORT CIRCUIT STUDY SHALL BE BASED ON THE FAULT CURRENT AVAILABLE UPSTREAM OF THE MANITOBA HYDRO TRANSFORMER. THE PARAMETERS OF THE TRANSFORMER SUPPLIED BY MANITOBA HYDRO AND THE PROPOSED DISTRIBUTION EQUIPMENT. INCREASE DISTRIBUTION FAULT CURRENT RATING AS NECESSARY, BASED ON THE OUTCOME OF THE SHORT CIRCUIT STUDY.
- PROVIDE METERING CABINET BASED ON MANITOBA HYDRO METERING STANDARDS, 3RD EDITION AND IN COORDINATION WITH MANITOBA HYDRO.

1 PARTIAL SINGLE LINE DIAGRAM - NEW CONSTRUCTION
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